LAKE: SENNEBEC P TOWN: APPLETON

COUNTY: KNOX

MIDAS: 5682 TRUE BASIN: SAMPLE STATION:

1

WHOLE LAKE INFORMATION

MAX. DEPTH: 17 m. (57 ft.)

MEAN DEPTH: 6 m. (19 ft.)

DELORME ATLAS #: 14

USGS QUAD: WASHINGTON

IFW REGION B: Belgrade Lakes (Augusta)

IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 215.0 ha. (531.3 a.)

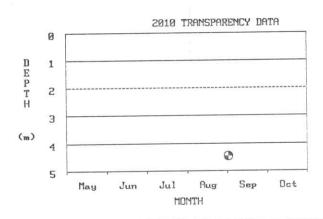
FLUSHING RATE: 15.47 flushes/yr.

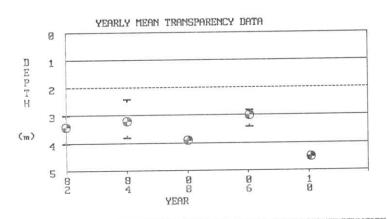
VOLUME: 11526079.0 cu. m. (9350 ac.-ft.)

DIRECT DRAINAGE AREA: 122.99 sq. km. (47.49 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. SENNEBEC P has 1 True Basin(s).

### SECCHI DISK TRANSPARENCY GRAPHS:





Note: 2010 graphs may indicate multiple readings taken on a given day.

## SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[\* indicates that Secchi disk was visable at bottom of lake (or one reading used in calculation was visable)].

	MEAN	MEAN	MEAN	MEAN															
	COLOR		ALK	COND.	TOTAL	PHOS.	MEANS (	ppb)	SECCH	I DISK	(m.)		CHLORO	PHYLL	A(ppb)	TROP	HIC ST	ATE IN	DICES
	(SPU)	0	(mg/1)	(uS	EPI	SURF	BOT.	PRO.								EPI	PHOS		
YEAR	*************		2.07 2	/cm)	CORE	GRAB	GRAB_	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	<u>C</u>	<u>G</u>	SEC	CHL
1982	_	-		-	-	-	-	-	3.0	3.4	4.0	3	-	-	-	-	-	-	-
1984	45	6.90	8.0	-	16	-	19	-	2.4	3.2	3.8	4	4.4	4.4	4.4	-	-	-	-
1991	-	_	2.71		15	-	-	-	-	-	-		_	-	-	-	-	-	-
2000	28	- '	12.0	46	17	-	46	-	3.9	3.9	3.9	1	6.9	6.9	6.9	-	$(x_i)_{i=1}^{m}(x_i$	-	-
2006	75	7.04	9.4	41	17	-	33	1	2.8	3.0	3.4	4	1.1	6.0	14.0	-	-	-	-
2010	_		-	-	13	_	25	1944	4.5	4.5	4.5	1	5.0	5.0	5.0	-	-	-	_
SIIMMARY:	49	6.96	9.8	44	16	-	30	-	2.4	3.6	4.5	5	1.1	5.6	14.0	-	-	-	-

MIDAS: 5682 \*TRUE BASIN: 1 \*SAMPLE STATION: 1

# LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

			S	AMPLE	DATE				
DEPTH	08/20	/84	08/10	/00	09/05	/06	09/01/10		
m	°C	mqq	_°C_	ppm	°C_	ppm	_°C_	ppm	
0.0	23.0	7.7	24.9	8.5	19.8	8.5	27.6	8.2	
1.0	23.0	7.7	24.9	8.4	19.5	8.4	26.0	8.4	
2.0	23.0	7.7	24.8	8.5	19.4	8.3	24.8	8.4	
3.0	23.0	7.6	23.5	7.2	19.4	8.3	23.0	7.5	
4.0	21.3	6.1	22.0	4.4	19.1	7.6	22.4	7.0	
5.0	19.5	1.9	20.4	2.3	18.6	7.1	22.0	6.2	
6.0	16.5	1.7	19.1	1.1	17.8	7.6	21.5	5.8	
7.0	16.0	1.7	14.9	0.9	17.2	5.3	20.1	2.9	
8.0	14.0	1.9	14.9	1.0	15.6	1.1	16.7	0.2	
9.0	13.0	1.9	14.3	0.9	14.2	0.4	15.2	0.2	
10.0	13.0	1.9	14.0	0.9	13.5	0.2	14.4	0.2	
11.0	12.5	1.9	13.9	0.8	13.1	0.2	14.0	0.2	
12.0	12.5	1.7	13.8	0.7	12.9	0.2	13.7	0.2	
13.0	12.0	1.5	13.3	0.6	12.8	0.1	13.4	0.2	
14.0	12.0	1.5	13.0	0.5	12.6	0.1	13.0	0.2	
15.0	12.0	1.5	12.7	0.1	12.3	0.1	12.3	0.2	
16.0	11.5	0.3	11.9	0.0	11.9	0.1	11.6	0.2	
17.0	-	_	11.7	0.0	11.5	0.1	11.4	0.2	
18.0	-	-	11.4	0.0	100	-	-	-	
19.0	-	_	-	_	11.4	0.1	-	_	

### WATER QUALITY SUMMARY

#### SENNEBEC POND, APPLETON

Midas: 5682, Sample Station # 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate present water quality, track algae blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Sennebec Pond has been collected since 1982. During this period, 3 years of basic chemical information was collected, in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Sennebec Pond is considered to be slightly below average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algae blooms on Sennebec Pond is moderate to high.

Water Quality Measures:

Sennebec Pond is a colored lake (average color 37 SPU) with an average SDT of 3.5m (11.5ft).

The range of water column TP for Sennebec Pond is 15 - 17 parts per billion (ppb) with an average of 16 ppb, while Chla ranges from 4.4 - 6.9 ppb with an average of 5.7 ppb. Recent dissolved oxygen (DO) profiles show high DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is high.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <a href="http://www.lakesofmaine.org/">http://www.lakesofmaine.org/</a> and/or <a href="http://www.maine.gov/dep/blwq/lake.htm">http://www.maine.gov/dep/blwq/lake.htm</a>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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